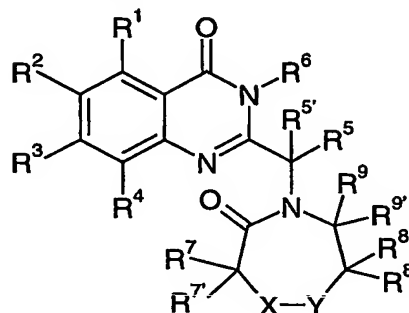


What is claimed:

1. A compound selected from those represented by the formula I:



Formula I

5 wherein:

$R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are each independently chosen from hydrogen, optionally substituted alkyl, optionally substituted alkoxy, halogen, hydroxyl, nitro, cyano, dialkylamino, alkylsulfonyl, alkylsulfonamido, alkylthio, carboxyalkyl, carboxamido, aminocarbonyl, optionally substituted aryl and optionally substituted heteroaryl;

10  $R^5$  and  $R^{5'}$  are each independently chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl; or  $R^5$  and  $R^{5'}$  taken together form an optionally substituted 3- to 7-membered carbocyclic ring;

$R^6$  is hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroaralkyl;

20  $R^7$ ,  $R^7$ ,  $R^8$ ,  $R^8$ ,  $R^9$  and  $R^9$  are each independently chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl;

X and Y are each independently chosen from  $C(R^{10})(R^{11})$ ,  $N(R^{12})$ , O and S,

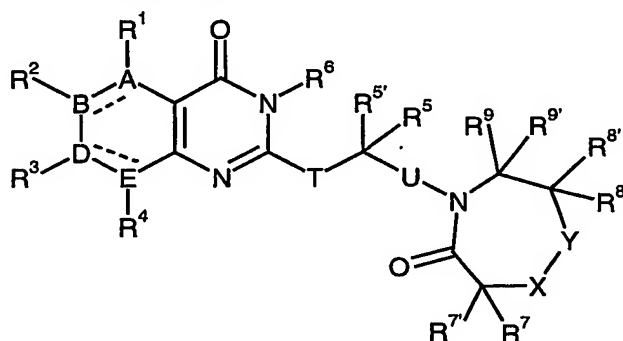
wherein  $R^{10}$  and  $R^{11}$  are each independently chosen from H, optionally substituted alkyl, optionally substituted aryl and optionally substituted heteroaryl; and

$R^{12}$  is H, optionally substituted alkyl, optionally substituted aralkyl, optionally substituted heteroaralkyl, optionally substituted alkylcarbonyl, optionally substituted arylcarbonyl, optionally substituted heteroarylcarbonyl, optionally substituted aralkylcarbonyl, optionally substituted heteroaralkylcarbonyl, optionally substituted alkoxy carbonyl, optionally substituted aryloxy carbonyl, optionally substituted heteroaryloxy carbonyl, optionally substituted aralkyloxy carbonyl, or optionally substituted heteroaralkyloxy carbonyl;

including single stereoisomers and mixtures of stereoisomers thereof, and pharmaceutically acceptable derivatives (e.g., salts) and solvates thereof.

15

2. A compound selected from those represented by the Formula II:



Formula II

wherein:

$R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are each independently chosen from hydrogen, optionally substituted alkyl, optionally substituted alkoxy, halogen, hydroxyl, nitro, cyano, dialkylamino, alkylsulfonyl, alkylsulfonamido, alkylthio, carboxyalkyl, carboxamido, aminocarbonyl, optionally substituted aryl and optionally substituted heteroaryl;

$R^5$  and  $R^{5'}$  are each independently chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl; or

R<sup>5</sup> and R<sup>5'</sup> taken together form an optionally substituted 3- to 7-membered carbocyclic ring;

R<sup>6</sup> is hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroaralkyl;

R<sup>7</sup>, R<sup>7'</sup>, R<sup>8</sup>, R<sup>8'</sup>, R<sup>9</sup> and R<sup>9'</sup> are each independently chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl;

X and Y are each independently chosen from C(R<sup>10</sup>)(R<sup>11</sup>), N(R<sup>12</sup>), O and S,

wherein R<sup>10</sup> and R<sup>11</sup> are each independently chosen from H, optionally substituted alkyl, optionally substituted aryl and optionally substituted heteroaryl; and

R<sup>12</sup> is H, optionally substituted alkyl, optionally substituted aralkyl, optionally substituted heteroaralkyl, optionally substituted alkylcarbonyl, optionally substituted arylcarbonyl, optionally substituted heteroarylcarbonyl, optionally substituted aralkylcarbonyl, optionally substituted heteroaralkylcarbonyl, optionally substituted alkoxy carbonyl, optionally substituted aryloxy carbonyl, optionally substituted heteroaryloxy carbonyl, optionally substituted aralkyloxy carbonyl, or optionally substituted heteroaralkyloxy carbonyl;

T and U are independently a covalent bond, -C(O)-, or optionally substituted alkylene;

A, B, D and E are independently N, C, CH, O, S or absent, provided that:

no more than one of A, B, D or E is absent;

no more than two of A, B, D and E are -N=, and

A, B, D or E can be O or S only when one of A, B, D or E is

absent; and

provided that R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> or R<sup>4</sup> is absent where A, B, D or E, respectively, is -N=, O, S or absent;

including single stereoisomers and mixtures of stereoisomers thereof, and pharmaceutically acceptable derivatives (e.g., salts) and solvates thereof.

5     3.     A compound according to claim 2 wherein A, B, D and E are independently chosen from -C= and -N=.

4.     A compound according to claim 2 or 3 wherein T is optionally substituted C<sub>1</sub>-C<sub>4</sub> alkylene or is a covalent bond (i.e., absent).

10

5.     A compound according to claim 2, 3 or 4 wherein U is optionally substituted C<sub>1</sub>-C<sub>4</sub> alkylene or is a covalent bond.

6.     A compound according to any of the preceding claims wherein R<sup>1</sup>,  
15     R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are each independently selected from H, halogen, cyano, optionally substituted C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, optionally substituted C<sub>1</sub>-C<sub>4</sub> alkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkoxy.

7.     A compound according to any of the preceding claims wherein R<sup>1</sup>, R<sup>2</sup>,  
20     R<sup>3</sup> and R<sup>4</sup> are each independently selected from H and halogen.

8.     A compound according to any of the preceding claims wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>4</sup> are each H and R<sup>3</sup> is halogen (e.g., chloro).

9.     A compound according to any of the preceding claims wherein R<sup>5</sup> and R<sup>5'</sup> are each independently selected from H and C<sub>1</sub>-C<sub>4</sub> alkyl.

10.     A compound according to any of the preceding claims wherein R<sup>5'</sup> is H and R<sup>5</sup> is C<sub>1</sub>-C<sub>4</sub> alkyl.

11.     A compound according to claim 9 wherein R<sup>5'</sup> is H and R<sup>5</sup> is H, ethyl, cyclopropyl or iso-propyl (particularly ethyl, cyclopropyl or iso-propyl).

12. A compound according to any of the preceding claims wherein R<sup>6</sup> is C<sub>1</sub>-C<sub>8</sub> alkyl, aryl-C<sub>1</sub>-C<sub>4</sub> alkyl- or heteroaryl-C<sub>1</sub>-C<sub>4</sub> alkyl-.
- 5 13. A compound according to any of the preceding claims wherein R<sup>6</sup> is phenyl-C<sub>1</sub>-C<sub>4</sub> alkyl-.
14. A compound according to any of the preceding claims wherein R<sup>6</sup> is benzyl.
- 10 15. A compound according to any of the preceding claims wherein R<sup>7</sup>, R<sup>7'</sup>, R<sup>8</sup>, R<sup>8'</sup>, R<sup>9</sup> and R<sup>9'</sup> are each independently selected from H and C<sub>1</sub>-C<sub>4</sub> alkyl.
- 15 16. A compound according to any of the preceding claims wherein R<sup>9</sup> and R<sup>9'</sup> are each H and R<sup>7</sup> and R<sup>7'</sup> or R<sup>8</sup> and R<sup>8'</sup> are each independently H or C<sub>1</sub>-C<sub>4</sub> alkyl.
- 20 17. A compound according to any of the preceding claims wherein R<sup>7</sup>, R<sup>7'</sup>, R<sup>8</sup>, R<sup>8'</sup>, R<sup>9</sup>, and R<sup>9'</sup> are each H; or R<sup>7</sup>, R<sup>7'</sup>, R<sup>9</sup>, and R<sup>9'</sup> are each H and R<sup>8</sup> and R<sup>8'</sup> are each H or C<sub>1</sub>-C<sub>4</sub> alkyl, or R<sup>8</sup>, R<sup>8'</sup>, R<sup>9</sup>, and R<sup>9'</sup> are each H and R<sup>7</sup> and R<sup>7'</sup> are each H or C<sub>1</sub>-C<sub>4</sub> alkyl.
- 25 18. A compound according to any of the preceding claims (particularly claims 12 and 13) wherein each of said C<sub>1</sub>-C<sub>4</sub> alkyl is methyl.
- 30 19. A compound according to any of the preceding claims wherein one of X or Y is C(R<sup>10</sup>)(R<sup>11</sup>), wherein R<sup>10</sup> and R<sup>11</sup> are each independently selected from H or C<sub>1</sub>-C<sub>4</sub> alkyl, and the other of X or Y is N(R<sup>12</sup>), where R<sup>12</sup> is H, C<sub>1</sub>-C<sub>4</sub> alkyl, optionally substituted aralkyl, optionally substituted heteroaralkyl, C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl, optionally substituted arylcarbonyl, optionally substituted heteroarylcarbonyl, optionally substituted

aralkylcarbonyl, optionally substituted heteroaralkylcarbonyl,  
 C<sub>1</sub>-C<sub>6</sub> alkoxy carbonyl, optionally substituted aryloxy carbonyl, optionally  
 substituted heteroaryloxy carbonyl, optionally substituted aralkyloxy carbonyl,  
 optionally substituted heteroaralkyloxy carbonyl, where the optionally  
 5 substituted aryl or heteroaryl groups or moieties are unsubstituted or  
 substituted with one or more substituents selected from C<sub>1</sub>-C<sub>4</sub> alkyl,  
 C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, amino, C<sub>1</sub>-C<sub>4</sub> alkylamino,  
 di-C<sub>1</sub>-C<sub>4</sub> alkylamino, carboxy, C<sub>1</sub>-C<sub>4</sub> alkylcarbonyloxy, C<sub>1</sub>-C<sub>4</sub> alkoxy carbonyl,  
 carboxamido, C<sub>1</sub>-C<sub>4</sub> alkylcarboxamido, aminocarbonyl,  
 10 C<sub>1</sub>-C<sub>4</sub> alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>4</sub> alkylaminocarbonyl, cyano,  
 C<sub>1</sub>-C<sub>4</sub> alkylcarbonyl, halogen, hydroxyl, mercapto and nitro.

20. A compound according to any of the preceding claims wherein X is  
 C(R<sup>10</sup>)(R<sup>11</sup>), wherein R<sup>10</sup> and R<sup>11</sup> are each H or C<sub>1</sub>-C<sub>4</sub> alkyl, and Y is N(R<sup>12</sup>),  
 15 where R<sup>12</sup> is H, C<sub>1</sub>-C<sub>4</sub> alkyl, aralkyl, heteroaralkyl, C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl,  
 arylcarbonyl, heteroarylcarbonyl.

21. A compound according to any of the preceding claims wherein X is  
 CH<sub>2</sub>, and Y is N(R<sup>12</sup>), where R<sup>12</sup> is H, methyl, benzyl or acetyl (-C(O)methyl).  
 20

22. A compound according to any of the preceding claims wherein R<sup>5</sup> and  
 R<sup>5'</sup> are each attached to a stereogenic center having an R-configuration.

23. A compound according to claim 1 substantially as hereinbefore  
 25 defined with reference to any one of the Examples.

24. A compound selected from:  
 3-Benzyl-7-chloro-2-[2-methyl-1-(7-oxo-[1,4]diazepan-1-yl)-propyl]-3H-  
 quinazolin-4-one;  
 30 3-Benzyl-7-chloro-2-[2-methyl-1-(4-methyl-7-oxo-[1,4]diazepan-1-yl)-propyl]-  
 3H-quinazolin-4-one  
 3-benzyl-7-chloro-2-[(R)-2-methyl-1-(7-oxo-

- [1,4]diazepan-1-yl)-propyl]-3H-quinazolin-4-one; 2-[1-(Acetyl-7-oxo-[1,4]diazepan-1-yl)-2-methyl-propyl]-3-benzyl-7-chloro-3H-quinazolin-4-one; 3-Benzyl-7-chloro-2-[1-(3,3-dimethyl-7-oxo-[1,4]diazepan-1-yl)-2-methyl-propyl]-3H-quinazolin-4-one;
- 5 3-Benzyl- 2-[1-(4-benzyl-7-oxo-[1,4]diazepan-1-yl)-2-methyl-propyl]- 7-chloro -3H-quinazolin-4-one;
- 3-Benzyl-7-chloro-2-[1-(7-oxo-[1,4]diazepan-1-yl)-propyl]-3H-quinazolin-4-one; and
- 3-Benzyl-7-chloro-2-[1-(6,6-dimethyl-7-oxo-[1,4]diazepan-1-yl)-2-methyl-propyl]-3H-quinazolin-4-one;
- 10 or a pharmaceutically acceptable derivative (e.g., salt) or solvate thereof.

25. A compound according to any one of the preceding claims for use as an active therapeutic substance.
- 15 26. A compound according to any one of the preceding claims for use in treating cellular proliferative diseases (e.g., cancer).
27. A composition comprising a pharmaceutically acceptable excipient and
- 20 a compound according to any of claims 1-24.
28. A composition according to claim 27, wherein said composition further comprises a taxane, a vinca alkaloid, or a topoisomerase I inhibitor.
- 25 29. A method of modulating KSP kinesin activity which comprises contacting said kinesin with an effective amount of the compound according to any one of claims 1 to 24.
- 30 30. A method of inhibiting KSP which comprises contacting said kinesin with an effective amount of the compound according to any one of claims 1 to 24.

31. A method for the treatment of a disease of proliferating cells comprising administering to a subject in need thereof the compound according to any one of claims 1-24.
- 5 32. A method for the treatment of a disease of proliferating cells comprising administering to a subject in need thereof the composition according to claim 27 or 28.
- 10 33. A method according to claim 31 or claim 32 wherein said disease is selected from the group consisting of cancer, hyperplasias, restenosis, cardiac hypertrophy, immune disorders, fungal disorders and inflammation.
- 15 34. Use of a compound according to any of one of claims 1-24 in the manufacture of a medicament for use in the treatment of cellular proliferative diseases (e.g., cancer).